Buffalopumps

Canned Motor Pumps

'C-O-M' Sealless Design



Ammonia
CO2
R-22
R-123
R-134a
Transformer Oil
Lithium Bromide

Refrigerant Recirculator Packages

Transfer Pumps

Absorption Chillers-Solution & Refrigerant

Transformer Oil Cooling

Chemical Process

efrigerant and other severe pumping applications demand pumps that provide reliability, performance and extended service life with a minimum of maintenance. Buffalo C-O-M pumps exhibit low NPSH characteristics and are able to withstand system upset conditions common in many applications. The C-O-M family of pumps is designed specifically with these requirements in mind.

The C-O-M is a hermetically sealed, zero leakage pump that eliminates the inherent maintenance and leakage problems associated with mechanically sealed pumps. It utilizes a wide selection of pump ends and a liquid cooled motor with unique, conical, self-lubricating, spring loaded bearings that are self-compensating for wear. During operation, axial and radial thrust loads are balanced by Buffalo's exclusive Thrust-O-Matic® device. Buffalo's patented conical bearing design compensates for wear in an axial direction. This prevents radial movement of the rotating assembly, keeping it centered and away from the stator can. This is a major advantage that the conical bearing design has over sleeve bearing designs. Sleeve bearings produce an elliptical wear pattern, allowing radial movement of the rotating assembly towards the stator can.

Buffalo Pumps is backed by over 60 years of fieldproven experience in designing hermetically sealed pumps to handle most applications. This experience also provides flexibility in assisting OEMs, contractors and end-users in designing a sound installation that ensures maximum life.

DESIGN FEATURES

Impellers for the C-O-M are designed specifically to provide low NPSH characteristics. An extremely wide range of performance requirements can be met within 3 feet or less of NPSH available.

The combination of specialized bearing designs with balanced axial and radial thrust loads results in bearing life of up to 50,000 hours.

C-O-M pumps utilize a back pull-out design allowing removal of the motor and impeller without affecting system piping.

C-O-M pumps have a vertical centerline discharge with self-venting characteristics.

C-O-M pumps are thoroughly tested before shipment. Each pump is given a hydrostatic test at 150% of the rated working pressure, a running test to ensure hydraulic balance over the complete performance range and a halogen or mass spectrometer test to ensure the complete unit is hermetically sealed.

ENGINEERING ASSISTANCE

Buffalo Pumps' Sales Engineers have the engineering training and practical field experience to make the correct selection and application of C-O-M pumps. In addition, they have the full support of Buffalo Pumps' home office research and engineering personnel. This in-depth engineering service is invaluable in ensuring proper pump application and installation.

AVAILABILITY

Buffalo Pumps maintains extensive stock for C-O-M pumps and is committed to servicing the market delivery demands. In addition, a complete repair parts department stands ready to service your ordinary maintenance and emergency breakdown needs.

GENERAL SPECIFICATIONS

- Working pressures as standard to 250 psi and up to 600 psi for higher pressure applications.
- Temperature range from -65°F to 100°F with standard product. Through the use of special materials of construction, the C-O-M can be applied down to -100°F.

 Note: Buffalo Pumps has additional sealless pumps that are available for capacities up to 1000 GPM, head to 650 feet, temperatures ranging from -150°F to 400°F and working pressures up to 600 psi Contact the Buffalo Pumps factory for further information.
- \bullet Standard materials of construction include a low temperature ductile iron or cast steel casing, cast iron impeller, carbon graphite bearings and all wetted motor parts of 316 stainless steel.
- · Wetted motor parts can also be made out of Hastelloy



R-123 refrigerant pump featuring UL Recognition



Low NPSH ammonia recirculator pump

'C-O-M' Custom Design



COM pump used on re-chiller system in poultry industry



COM Pump designed for transformer oil cooling service



Oil filled stator design for high temperature service

Buffalo Pumps Exclusive Conical Bearing Design



Assures concentricity between rotor and stator at all times
Bearings are self lubricating
Both bearings wear evenly
Extended bearing life (up to 50,000 hours)



High pressure design (580 psi) for CO2 Cascade system



Unique absorption doubleend pump for solution and solution spray service

CANNED MOTOR PUMP APPLICATION DATA WORKSHEET

Visit our website at www.buffalopumps.com to submit this data for Buffalo Pumps selection and quotation

Project Reference:		Service: Recirculator
•		Transfer
		Absorption
Flow Required:	US GPM cubic meters / hour	Cooling
		Transformer cooling oil
		Other
or		Liquid: Ammonia
		CO2
Tons Refrigeration		R-22
Temp		R-123
Overfeed rate		LiBr
Overreed rule		Water
		Superheated water
		Other
Pressure Required:	f	normal operating temperature F/C
		minimum operating temperature F/C
		maximum operating temperature $\ \ \ \ \ \ \ \ \ \ \ \ \ $
	: *	
	501	Pressure Rating: psi bar
		Materials of Construction:
Additional Requirements:		Buffalo Pumps Standard Cast Iron / Ductile Iron / Steel
		or
		Impeller
		Casing
		Motor wetted components
		Motor Requirements: specification attached
		HP / KW hazardous area
		rpm other
		frequency
Buffalo vur	MMS	

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Made in USA











